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CLAIMS:

1. An orthopaedic joint prosthesis which comprises first and second articulating components having respective bearing surfaces in contact with one another, the material of the first bearing surface comprising a metallic material and the material of the second bearing surface comprising a ceramic material, the hardness of the metallic material being at least about 2500 MPa, and the hardness of the ceramic material being greater than that of the metallic material by at least about 4000 MPa.
2. A prosthesis as claimed in claim 1, in which the ratio of the hardness of the ceramic material of the second bearing surface to that of the metal of the first bearing surface is at least about 2.
3. A prosthesis as claimed in claim 2, in which the said hardness ratio is at least about 3.
4. A prosthesis as claimed in claim 1, in which the difference between the hardness of the ceramic material of the second bearing surface and that of the metal of the first bearing surface is not more than about 30000 MPa.
5. A prosthesis as claimed in claim 1, in which the hardness of the ceramic material of the second bearing surface is at least about 10000 MPa.
6. A prosthesis as claimed in claim 1, in which the ceramic material comprises a hard oxide.
7. A prosthesis as claimed in claim 1, in which one of the components has a substantially convex bearing surface, and the other of the components is concave and can receive the component with the convex bearing surface within it.
8. A prosthesis as claimed in claim 7, in which the second component has the convex bearing surface and the first component is concave.

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9. A prosthesis as claimed in claim 1, in which the material of the bearing surface of at least one of the components is provided by a surface layer.
10. A prosthesis as claimed in claim 9, in which the thickness of the surface layer is at least about 50 μm .
11. A prosthesis as claimed in claim 1, in which the surface roughness of each of the bearing surfaces is not more than about 0.05 μm .